What is claimed is:

1. A semiconductor device in which a first semiconductor chip having a plurality of bonding pads formed along one of the sides of the main surface is mounted over a substrate, a second semiconductor chip having a plurality of bonding pads formed along one of the sides of the main surface is stacked over the main surface of said first semiconductor chip, said bonding pads of said first semiconductor chip and said bonding pads of said second semiconductor chip are electrically connected with electrodes on said substrate via wires, and said first and second semiconductor chips, and said wires are sealed with a resin, wherein said second semiconductor chip is stacked over the main surface of said first semiconductor chip, while being slid in a direction parallel to the one side of said first semiconductor chip and in a direction perpendicular thereto.

2. A semiconductor device according to claim 1, wherein said first and second semiconductor chips have a circuit of the same function formed thereon and are same in size.

3. A semiconductor device according to claim 2, wherein each of said first and second semiconductor chips has a flash memory formed on the main surface thereof.

4. A semiconductor device according to claim 1,

wherein said first and second semiconductor chips are stacked one after another with their faces turned in the same direction and the plurality of bonding pads formed on the main surface of one of said two semiconductor chips are disposed in the vicinity of the plurality of bonding pads formed on the main surface of the other semiconductor chip.

5. A semiconductor device according to claim 1, wherein on the main surface of said second semiconductor chip, a third semiconductor chip smaller in external size than said second semiconductor chip is stacked.

6. A semiconductor device according to claim 1, wherein said third semiconductor chip is disposed in a region sandwiched between one side opposite to said one side along which said plurality of bonding pads of said first semiconductor chip are formed and one side along which said plurality of bonding pads of said second semiconductor chip are formed.

7. A semiconductor device according to claim 1, further comprising a third semiconductor chip mounted over said substrate.

8. A semiconductor device according to claim 1, wherein said second semiconductor chip is stacked while being slid in a direction parallel to said one side of the main surface of said first semiconductor chip and in a direction perpendicular thereto so that said one side of

the main surface of said second semiconductor chip is opposite to said one side of the main surface of said first semiconductor chip and said bonding pads of said first semiconductor chip are exposed;

a third semiconductor chip having a plurality of bonding pads formed thereon along one of the sides of the main surface thereof is stacked over said second semiconductor chip in such a way that said one side of the main surface of said third semiconductor chip extends in the same direction with said one side of the main surface of said first semiconductor chip and at the same time, said third semiconductor chip and said first semiconductor chip are overlapped each other with their faces turned in the same direction;

said bonding pads of said first, second and third semiconductor chips are electrically connected with electrodes on said substrate via wires; and

said first, second and third semiconductor chips and said wires are sealed with a resin.

9. A semiconductor device according to claim 8, wherein a fourth semiconductor chip having a plurality of bonding pads formed along one of the sides of the main surface thereof is stacked over the main surface of said third semiconductor chip in such a way that said one side of the main surface of said fourth semiconductor chip

extends along the same direction with said one side of the main surface of said second semiconductor chip, and said fourth semiconductor chip and said second semiconductor chip are overlapped each other with their faces turned in the same direction.

10. A semiconductor device according to claim 9, wherein over the main surface of said fourth semiconductor chip, a fifth semiconductor chip smaller in external size than the fourth semiconductor chip is stacked.

11. A semiconductor device according to claim 10, wherein said fifth semiconductor chip is disposed in a region sandwiched between one side opposite to said one side of the main surface of each of said first and third semiconductor chips along which the plurality of bonding pads are formed, and another one side opposite to said one side of the main surface of each of said second and fourth semiconductor chips along which the plurality of bonding pads are formed.

12. A semiconductor device according to claim 9, wherein said second and fourth semiconductor chips are stacked, while being slid in a direction parallel to said one side of the main surface of each of said first and third semiconductor chips.

13. A process for manufacturing a semiconductor device, comprising the steps of:

(a) mounting, over a substrate, a first semiconductor chip having a plurality of bonding pads formed along one of the sides of the main surface;

(b) stacking, over the main surface of said first semiconductor chip, a second semiconductor chip having a plurality of bonding pads formed along one of the sides of the main surface thereof, while sliding said second semiconductor chip in a direction parallel to said one side of said first semiconductor chip and in a direction perpendicular thereto;

(c) electrically connecting, via wires, said plurality of bonding pads formed on said first and second semiconductor chips with electrodes formed on said substrate; and

(d) sealing said first and second semiconductor chips and said wires with a resin.

14. A method for manufacturing a semiconductor device according to claim 13, wherein upon electrically connecting, via wires, said plurality of bonding pads formed on said second semiconductor chip with said electrodes, the surface of each of said electrodes is connected with one end of each of said wires, followed by connecting the other end of said wire with the surface of each of said bonding pads.

15. A process for manufacturing a semiconductor

device according to claim 13, further comprising connecting a bump electrode with another surface of said substrate.